- 1. An apparatus for distributing synchronized clock signals to multiple sites, the apparatus comprising:
 - a clock input configured as a solder bump;
 - a first driver coupled to said clock input; and
 - a first receiver coupled to said driver.
- 10 2. The apparatus for distributing synchronized clock signals to multiple sites of claim 1, further comprising a first transmission line spanning between said first driver and said first receiver.
 - 3. The apparatus for distributing synchronized clock signals to multiple sites of claim 2, further comprising a second driver, a second receiver, and a second transmission line.
 - 4. The apparatus for distributing synchronized clock signals to multiple sites of claim 3, wherein said first transmission line and said second transmission line comprise substantially equal time delay.
 - 5. The apparatus for distributing synchronized clock signals to multiple sites of claim 1, further comprising multiple transmission lines spanning between said first receiver and said second receiver.
- 25 6. The apparatus for distributing synchronized clock signals to multiple sites of claim 5, wherein at least two of said plurality of transmission lines are configured to cancel noise.
 - 7. The apparatus for distributing synchronized clock signals to multiple sites of

claim 1, wherein the apparatus is formed using SiGe.

8.

5

10

Mine Fark

- <u>1</u>15

E3 į. TJ 20

12

į.

9. A microelectronic device configured to supply synchronic clock signals to a microprocessor, said microelectronic device comprising:

The apparatus for distributing synchronized clock signals to multiple sites of

an input;

- a clock driver coupled to said input;
- a transmission line coupled to said clock driver;
- a receiver coupled to said transmission line; and
- an output coupled to said receiver.
- The microelectronic device configured to supply synchronic clock signals to a 10. microprocessor of claim 9, further comprising a plurality of outputs.
- The microelectronic device configured to supply synchronic clock signals to a 11. microprocessor of claim 9, further comprising a plurality of drivers and a plurality of receivers.
- The microelectronic device configured to supply synchronic clock signals to a 12. microprocessor of claim 9, wherein said input is configured as a solder bump.
- The microelectronic device configured to supply synchronic clock signals to a 13. microprocessor of claim 9, wherein said output is configured as a solder bump.
- The microelectronic device configured to supply synchronic clock signals to a 14. microprocessor of claim 9, wherein said transmission line is shielded.
 - The microelectronic device configured to supply synchronic clock signals to a 15.

25

microprocessor of claim 9, further comprising a second transmission line coupled to a second driver and a second receiver.

16. The microelectronic device configured to supply synchronic clock signals to a microprocessor of claim 15, wherein said second transmission line exhibits about the same delay as said transmission line.